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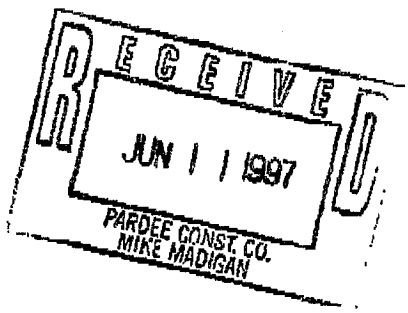

April 9, 1997

Ms. Dale Hoffman-Floerke
Environmental Services Office
Department of Water Resources
P.O. Box 942836
Sacramento, CA 94236-0001

Dear Ms. Hoffman-Floerke

RE: State Water Project Supplemental Water Purchase Program Draft Environmental Impact Report; State Clearinghouse Number 94082033

Sutter County appreciates the opportunity to comment on the above listed project. Upon review of the proposal and accompanying environmental analysis, a large number of concerns have been identified. A program for large scale pumping of groundwater for the purposes of facilitating out of area transfer sales constitutes water export and a potential first step toward long term appropriation of this resource that is the economic life blood of Sutter County's primary industry - agriculture. Sutter County does not support the exportation of water from the Sacramento Valley, particularly when the proposal involves large volumes that appear destined for Southern California where history has shown there is little concern for conservation of the resource. History also reminds us of the events in the Owens Valley that resulted in wholesale appropriations, environmental degradation and economic devastation of the region's agricultural industry.

The extraction of large volumes of groundwater is a risky proposition that has the potential for tremendous impacts to vast amounts of public and private infrastructure, property and natural resources. There are many examples of severely impacted groundwater resources throughout California, most notably the San Joaquin Valley which was presumably excluded from the groundwater extraction portion of the proposal due to the degraded state of that basin from overdraft, subsidence, quality reduction and energy costs.

The focus of statewide studies should be to significantly improve existing surface water supplies through improved storage and conveyance systems. The opportunity exists for accomplishing flood hazard reduction and surface water storage with off stream projects like the Sites Reservoir that can

be achieved in an environmentally sensible manner while providing the greatest net gain in water supply. Such projects must be emphasized over groundwater banking and conjunctive use which only change the time and place of use, thereby providing only a small percentage increase in net supply.

The traditional definition of conjunctive use is applicable for local, in-basin operations. With statewide conjunctive use, redirected surface irrigation water would not be available to recharge groundwater resulting in the potential for significantly lower summer drawdown levels. A statewide conjunctive use concept implies that surface water supplies will be taken from north valley users, leaving this area to rely upon uncertain and unproven groundwater supplies. The anticipated significant impacts could occur even if groundwater extractions are limited to the "safe yield" of the underlying basin (which is presently unknown). Conjunctive use should not be chosen for implementation under such uncertain circumstances. The Department of Water Resources (DWR) should also recognize that any proposed transfers involving groundwater must comply with county ordinances and the appropriate groundwater management regulations of the county or local water agencies.

The Draft Program Environmental Impact Report fails to adequately describe the project or address many of the potential impacts and should be comprehensively revised to add considerably more detail to both the project description and the analyses performed. If the potentially significant groundwater impacts related to the transfer sale pumping cannot be determined with any measure of accuracy or predictability as stated on pages 58, 65 and elsewhere, it would appear that sufficient information does not exist to satisfy CEQA's full disclosure requirements.

The prevention of land subsidence was not adequately addressed, nor were there proper guarantees that DWR would abide by an explicit action plan. Land subsidence has the greatest potential for catastrophic impacts. Subsidence occurs over long periods at varying rates. Subsidence can irreversibly destroy some storage capacities. The clayey soils in the Sacramento Valley are more susceptible than the sandy soils of the San Joaquin Valley. Page 64 discussion does not clarify whether subsidence is a risk when groundwater levels "approach" or "drop below" historical low levels. It is also mentioned that prevention requires not dropping below historical low levels and then immediately following this statement it is mentioned that the proposed program could cause levels to drop to new lows. It is then stated that subsidence will be monitored, but it does not say how this will be accomplished. All of these issues require clarification. The DEIR should present studies that demonstrate that subsidence will not occur during the operation of the Supplemental Water Purchase Program (SWPP).

If DWR were to declare a "drought" and pump water from inadequately recharged groundwater aquifers, substantial land subsidence could take place. Urban, rural and agricultural wells would be damaged or destroyed, (deeper) water extraction costs would increase, roads, bridges, water, sewer

and other infrastructures would be affected, gradients of drains and flood control channels could be altered, and clay aquifers would never recover. As stated in the DEIR, Butte and Yolo Counties sustained "irreversible" land loss during previous water banks. The potential for increased flood hazards in Sutter County is a vital issue in consideration of the low lying vulnerability and dependence upon a complex network of drainage facilities that could be rendered useless if subsidence were to occur.

Non-definitive terminology throughout the DEIR fails to address a prescribed course of action DWR must follow. Ambiguous language fails to define what is and who declares a "drought", what would prevent the short-term program from exceeding six years, if DWR would ever recharge the groundwater aquifers if a drought were declared throughout the six-year Program, who is responsible for collecting groundwater level data prior to implementing the Program, as well as maintaining that data, and what is the financial compensation DWR will offer to those impacted by the Program.

Potential impacts resulting in increased flood hazards could result from reservoir "refill criteria" unless proper consideration is given to the clearly established greater need for flood storage capacity.

Documents do not address the recently listed spring run chinook salmon. Mitigation for existing winter run salmon and other species is not specific and appears inadequate. Impacts to naturally occurring wetlands and riparian areas are not addressed. These areas are easily dewatered with groundwater extraction, destroying or severely impacting the biological resources dependent upon certain historical water levels.

There is a scientifically identified water purification process that occurs within the groundwater/surface water interaction (hyporheic) zone that will be lost if drawdowns and overdrafts occur. This impact is not addressed.

Potentially significant impacts to the County could occur if farmers fallow land to make water available for sales. The Blythe, California economy was devastated when the Metropolitan Water District banked 20% of the local agriculture water for two years. In Sutter County, crop substitution is not always feasible because of climatic conditions and heavier soils found here. The Program does not contain clear provisions for determining this impact nor does it describe how the program would be modified. Transfer sale profits may not be taxable in Sutter County if corporations report them outside the area. The Alternatives section (page 121) references a report sponsored by beneficiaries of a transfer sale program that could not be considered objective for the purposes of this study. These issues should be clarified.

Page 62 identifies western Sutter County as a previous participant in the Drought Water Bank (DWB) program when 2,000 acre feet of groundwater per year was extracted in 1991, 1992 and 1994. The County was not made aware of the program at that time. This fact was unknown until the

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document in question was received. Subsequently, after two requests from the Sutter County Environmental Health Program, DWR sent their Nov. 1993 DWB EIR. No evidence of monitoring of subsidence was provided. A 100-foot decline in water levels was reported which is very significant. Such drawdowns could severely impact wells in the area if they are left dry. Well spacing means nothing if there isn't a limit on pump size and/or volume. At a minimum there would be a significant increase in energy costs associated with adjacent wells having to pump from a much deeper level. Page 63 offers financial compensation for pump and well modification costs and increased energy costs. However, it does not state how this will be accomplished nor does it address the immediate impacts to Agricultural operators if impacts occur during any critical periods of the season. Additionally, there are no specifics provided regarding the implementation of such a program. These issues should be addressed in further detail.

Neither the DWB EIR nor the SWPP EIR provides any data about the location and depths of the source and monitoring wells. The DWB EIR provides some general and—with regard to Sutter County—not entirely correct information about water quality. The SWPP EIR, or an appendix for Sutter County, should contain enough well depth and location data to allow Environmental Health to interpret water quality and water level impacts of past and proposed extractions.

On page 4, the SWPP EIR indicates that about 200,000 acre-feet per year would be produced from groundwater substitutions. On page 58, the SWPP EIR indicates that ground water would come only from the Sacramento Valley and be drawn from the Delta. The SWPP EIR does not state exactly where the source wells would be, but on page 61, it refers to Yolo County, Yuba County, western Sutter County, and eastern Contra Costa County in discussions of the Drought Water Bank Program as being some of the same sources for the new SWPP. On page 62, the SWPP EIR states, "Based on the monitoring data, it appears that any future multi-year extraction should have little lasting impact on groundwater levels in western Sutter County." The 2,000 acre-feet previously extracted from somewhere in western Sutter County over 3 out of 4 years cannot be considered an adequate test of whether extracting a significant portion of 200,000 acre-feet per year over multiple years from undefined locations in Sutter County would have a lasting impact on groundwater levels. The SWPP EIR should provide source well depths and locations in Sutter County and the amount of water proposed to be extracted from each. Comparable data should be provided for the other Sacramento Valley ground water extraction areas.

On page 17, the SWPP EIR indicates that a Sacramento Valley conjunctive use project, which includes the American Basin Conjunctive Use Project in southeastern Sutter County and parts of Placer and Sacramento Counties, "...contemplate[s] development of 45,000 to 55,000 acre-feet of dry year water supply for the State Water Project." No EIR has yet been received by Sutter County on the conjunctive use project. The SWPP EIR does not present data to evaluate the conjunctive use project. Ground water from southeastern Sutter County would apparently be in addition to ground water extracted from western Sutter County to go to the State Water Project. The SWPP EIR should state how the American Basin conjunctive use project will be integrated into the SWPP.

The SWPP EIR is inadequate with respect to ground water quality in its Appendix B description of the existing environment. On page B-28, is a false statement: "Nitrate appears to be a point-source contaminant in a few shallow domestic wells and does not appear to be widespread, since most wells are well below drinking water quality limits." Environmental Health has test results from 20 wells in the town of Sutter and 48 wells in the urban area west of Yuba City city limits that exceed the Maximum Contaminant Level for nitrate. Concentrations of twice the MCL are common; concentrations of more than three times the MCL have occurred.

Complete ground water depth and areal delineations and descriptions of concentrations of arsenic, chloride, iron, manganese, nitrate, sulfate, Bentazon, dibromochloropropane (DBCP), Bromacil and 1,2-D should be provided by the SWPP EIR for present conditions throughout Sutter County.

The SWPP EIR is inadequate with respect to ground water quality impacts of the SWPP in Sutter County. On page 64, the SWPP EIR states, "If water quality degradation is detected that could result in groundwater exceeding standards for beneficial use, the potential impacts of program pumping on those increases will be reviewed. If the substitution program contributes to the measured degradation in groundwater quality, pumpage will be reduced or shifted to curtail degradation." In other words, pumping can continue until the degradation results in concentrations exceeding the Maximum Contaminant Levels. This procedure appears to be in violation of State Water Resources Control Board Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California." According to Central Valley Regional Water Quality Control Board, "A Compilation of Water Quality Goals, July 1995", page 4,

> "Under this policy, whenever the existing quality of water is better than that needed to protect all present and probable future beneficial uses of the water, such existing high quality shall be maintained until or unless it has been demonstrated to the state that any change in water quality:
>
> - ☐ Will be consistent with the maximum benefit to the people of the state,
> - ☐ Will not unreasonably affect present or probable future beneficial uses of such water, and
> - ☐ Will not result in water quality less than prescribed in state policies."

The SWPP EIR should disclose the rationale and justification for degrading Sutter County ground water until it exceeds the MCLs and then continuing to degrade the ground water but at a reduced rate.

The SWPP EIR does not disclose the locations of public water systems in Sutter County that rely upon ground water for their drinking water supply. The public drinking water supply systems could be impacted by degradation of ground water quality and by a lowering of the water levels or amounts

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of water in the aquifers. The SWPP EIR, or an appendix for Sutter County, should indicate the locations of all public water system wells, the depths of the wells, and the number of people served by each well and disclose the potential impacts resulting from implementation of the SWPP.

The SWPP EIR does not disclose the locations of all private domestic wells that could be impacted by degradation of ground water quality and a lowering of the water levels below the depths of accessible water in the wells. The SWPP EIR, or an appendix for Sutter County, should indicate the locations of all domestic wells, the depths of each well, and the numbers of people served by the wells.

The SWPP EIR Appendix B goes into considerable detail about wild plants, fish, and other animals, but there is only a single short paragraph on page B-30 that discusses agriculture from Red Bluff to the Delta. A considerable portion of agricultural land in Sutter County, that uses mainly surface water for irrigation, has significant concentrations of sodium chloride in the ground water. Substitution of ground water for surface water could result in a salt buildup in the soils that would damage the soils for subsequent crops. Page B-27, the SWPP indicates a similar problem exists with sulfate. The SWPP EIR, or an appendix for Sutter County, should present calculations that show how much chloride and sulfate from which specific wells could be applied to which lands in Sutter County before the soils would be adversely affected.

The SWPP EIR does not disclose the recharge areas for all the aquifers in Sutter County that are presently being used and that will be used under the American Basin conjunctive use and the SWPP. Recharge of shallow, unconfined aquifers can be assumed to occur from rainfall, applied irrigation water, and existing surface water flow. Recharge of deeper, semiconfined or confined aquifers is not discussed. Effects of multiple years of pumping are not addressed. The DWB EIR indicates on page 119 that land subsidence is caused by slow compaction of fine-grain materials in an aquifer: "There is a slow accumulation of effects but no quickly visible, dramatic impact." On page 44, the DWB EIR states, "However, the potential for land subsidence exists elsewhere in the [southern Sacramento] valley. In areas where conditions susceptible to subsidence occur (confined aquifers and thick fine grained deposits) additional development [of ground water] will require careful evaluation." Many well logs in Sutter County show thick clay layers. The SWPP EIR, or an appendix for Sutter County, should present maps and studies that delineate specific recharge areas for specific areas and depths of aquifers in Sutter County. Calculations and studies should also be presented that demonstrate that the amount of recharge that is achievable will be adequate to fully restore the amount of water stored in each source aquifer in a timely enough fashion to prevent land subsidence.

DWR has suggested that the recharge area for the deeper aquifers in the Sutter County portion of the American Basin is in the vicinity of Lincoln. However, DWR has not given to Sutter County any studies in support of that thesis. The SWPP EIR should present studies that show that removal of

water from Sutter County's natural recharge areas during operation of the SWPP, or the covering of those areas with asphalt, concrete, or buildings, will not result in depletion of the deeper aquifers and land subsidence.

The DWB EIR states on page 120, "Ground water extraction can induce poorer quality water to migrate to wells and the surrounding ground water. In the worst case, water quality at a well could deteriorate to the point where it was no longer suitable for its intended use...In addition, portions of the basin may become unusable since it is very difficult to reclaim substantial areas where water quality has deteriorated to the point where it is unusable." Further on page 63, the SWPP EIR states, "Groundwater quality monitoring during the 1991 Water Bank revealed no degradation in water quality over the course of the irrigation season. As a result, water quality monitoring was scaled back in subsequent water banks." On page 64, the SWPP EIR states, "Based on water quality test results from previous water banks, extraction by the proposed Supplemental Water Purchase Programs should cause no adverse impacts on groundwater quality, provided these extractions occur at similar locations and by extraction rates that do not exceed those of the water banks." These assumptions create several concerns as listed below.

Extractions of far greater amounts for more years are being proposed for Sutter County than the 2,000 acre-feet extracted in the three years of the water banks. The only monitoring wells proposed by the SWPP EIR are existing selected irrigation and domestic wells within 2 miles of the source wells for the SWPP that will be measured for specific conductance and for general minerals if the conductance exceeds a certain threshold. The proposed monitoring is inadequate for the following reasons:

1. Migration of significant amounts of arsenic or pesticides could occur without appearing as a significant increase in specific conductance.
2. Existing wells might not be at appropriate depths and locations to see early arrival of salts.
3. Monitoring wells should be placed close to the poorer quality water and at more than one depth in order to see constituent movement.
4. Pesticide movement would not be detected in the proposed monitoring program, but pesticides have been found in Sutter County well water.

The SWPP EIR is inadequate in its presentation of water quality monitoring. The SWPP EIR, or an appendix for Sutter County, should address the above four concerns.

In conclusion, upon complete review of the DEIR, Sutter County has a large number of concerns and questions that remain. Mitigation measures are vague and inadequate. Data for analysis is incomplete in most cases. Alternatives are not well presented and fail to consider possible improvements to surface water delivery. Overall discussion of impacts to agriculture are inadequate.

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The tone of the document appears written to support the Program and does not seem objective in its analysis or conclusions. In consideration of the concerns stated herein, Sutter County recommends DWR reconsider the proposed Program in its entirety. Greater emphasis should be placed upon increases in efficiency, conservation and improvement of the existing surface water supply system. Any consideration of groundwater development should be accomplished on a local basis within the context of a groundwater management program that will protect the resource with careful management and monitoring. Exportation of groundwater resources, either directly or indirectly, has very limited potential in consideration of the management complexity, as well as the existing and future anticipated local demands. This Program has the potential for far too many long term and irreversible impacts, which by themselves provide enough justification to conserve and protect the groundwater resources in the Sacramento Valley.

Sincerely,

DICK AKIN, CHAIRMAN
SUTTER COUNTY BOARD OF SUPERVISORS

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